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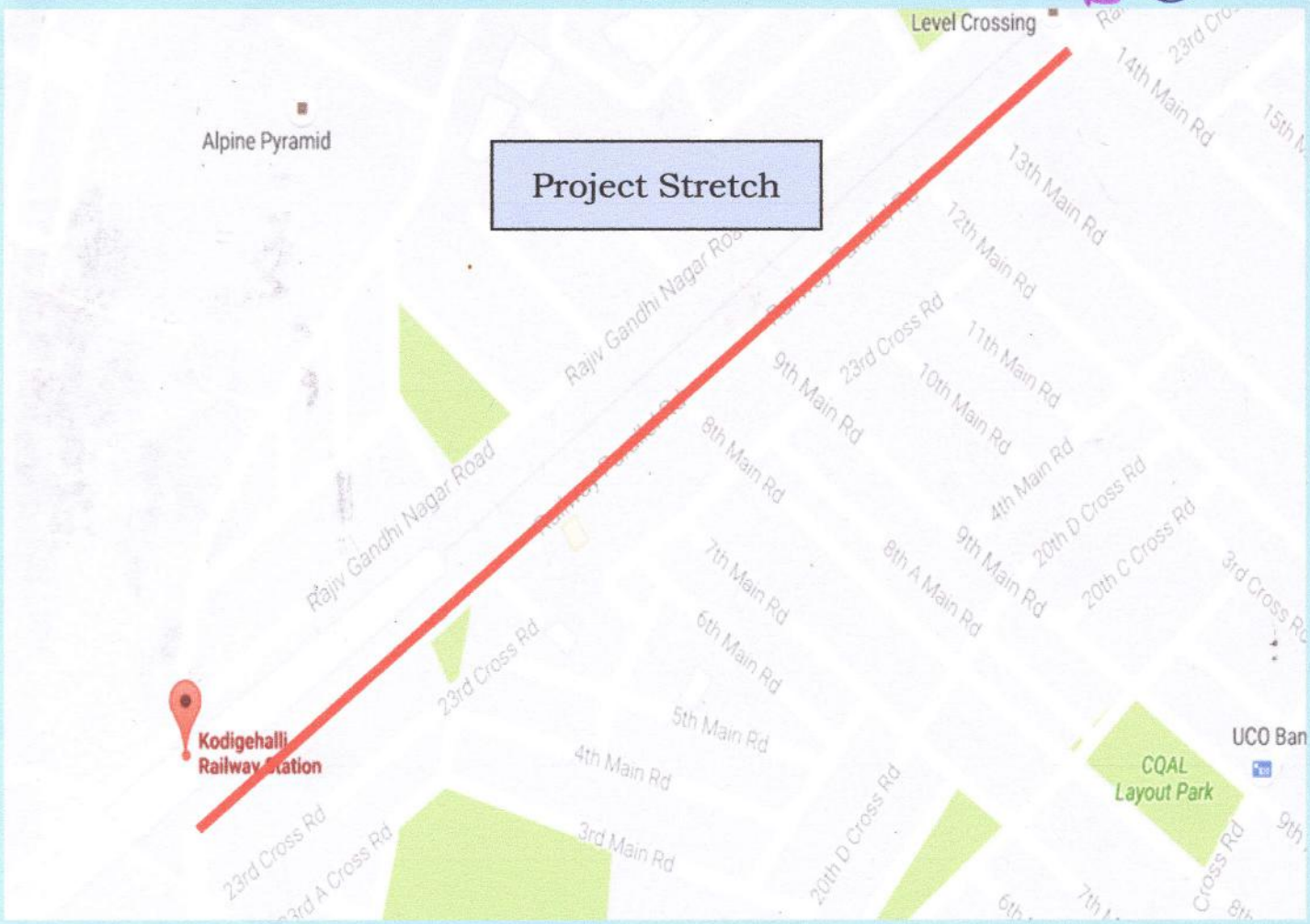
BRUHAT BANGALORE MAHANAGARA PALIKE

Improvements To Road, Drain And Footpath Along Railway Parallel Road And Cross Road In Ward Number 8, Kodigehalli

008-12-000043 (5)



Detailed Project Report

October 2016

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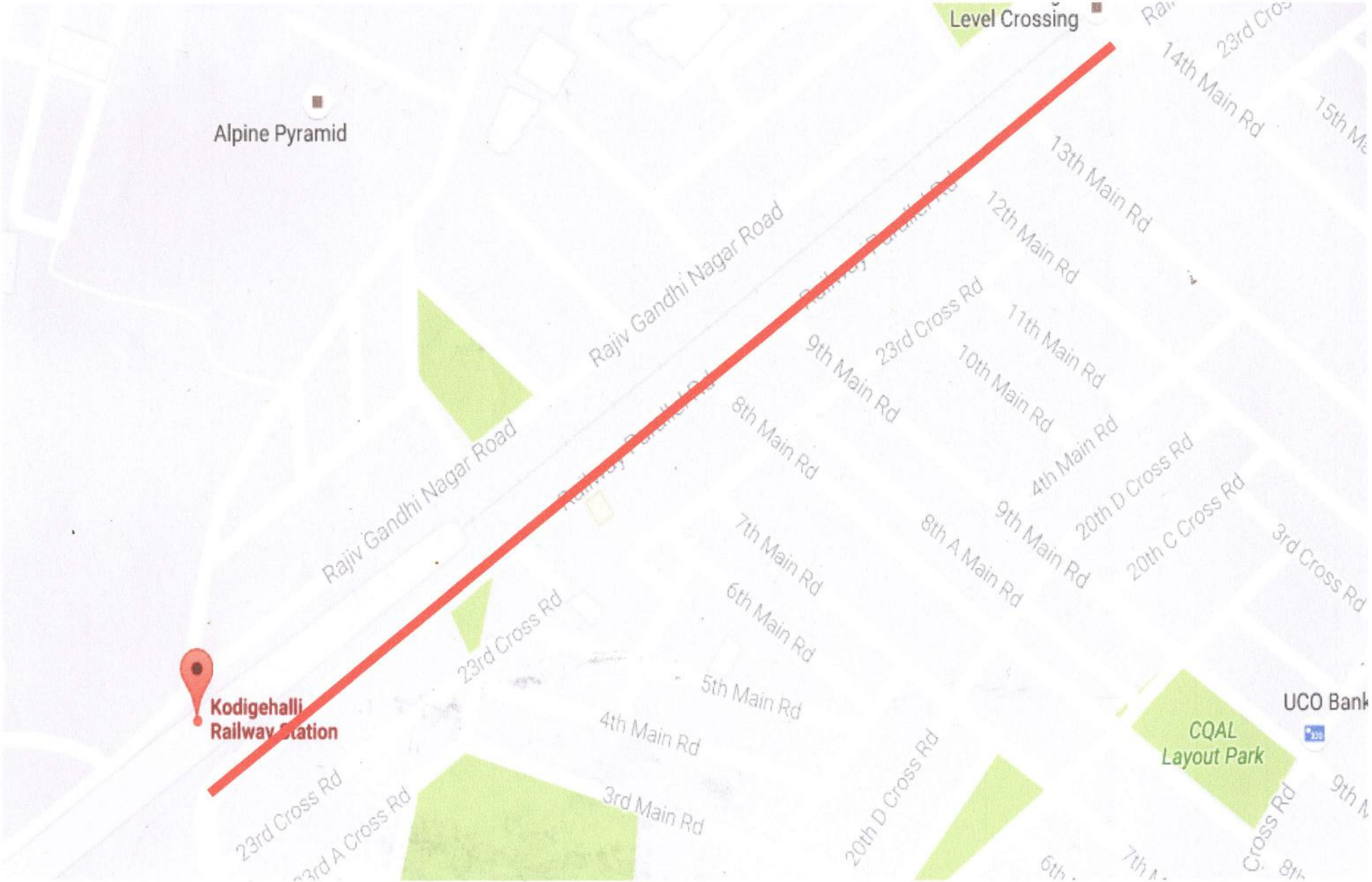
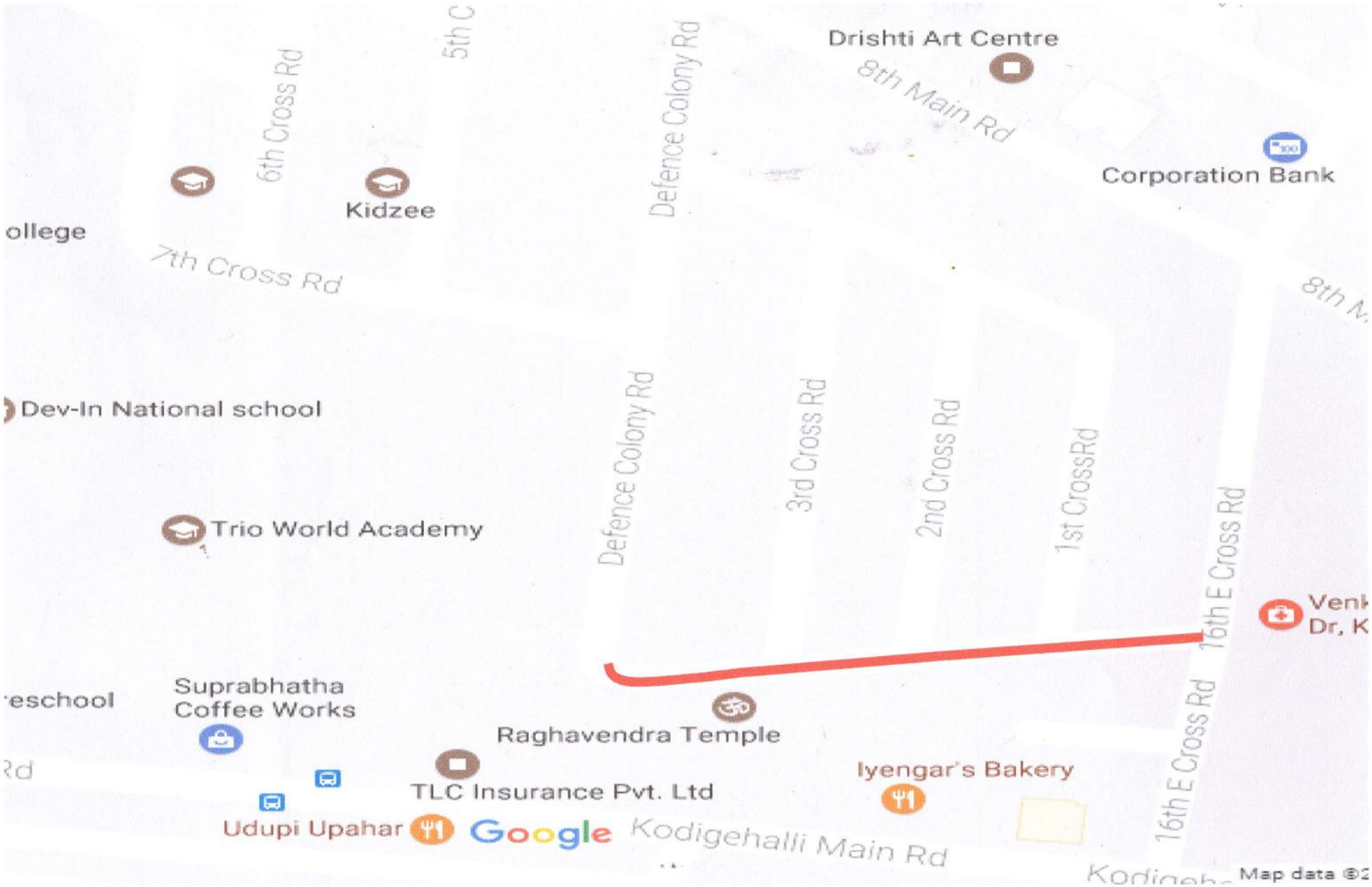
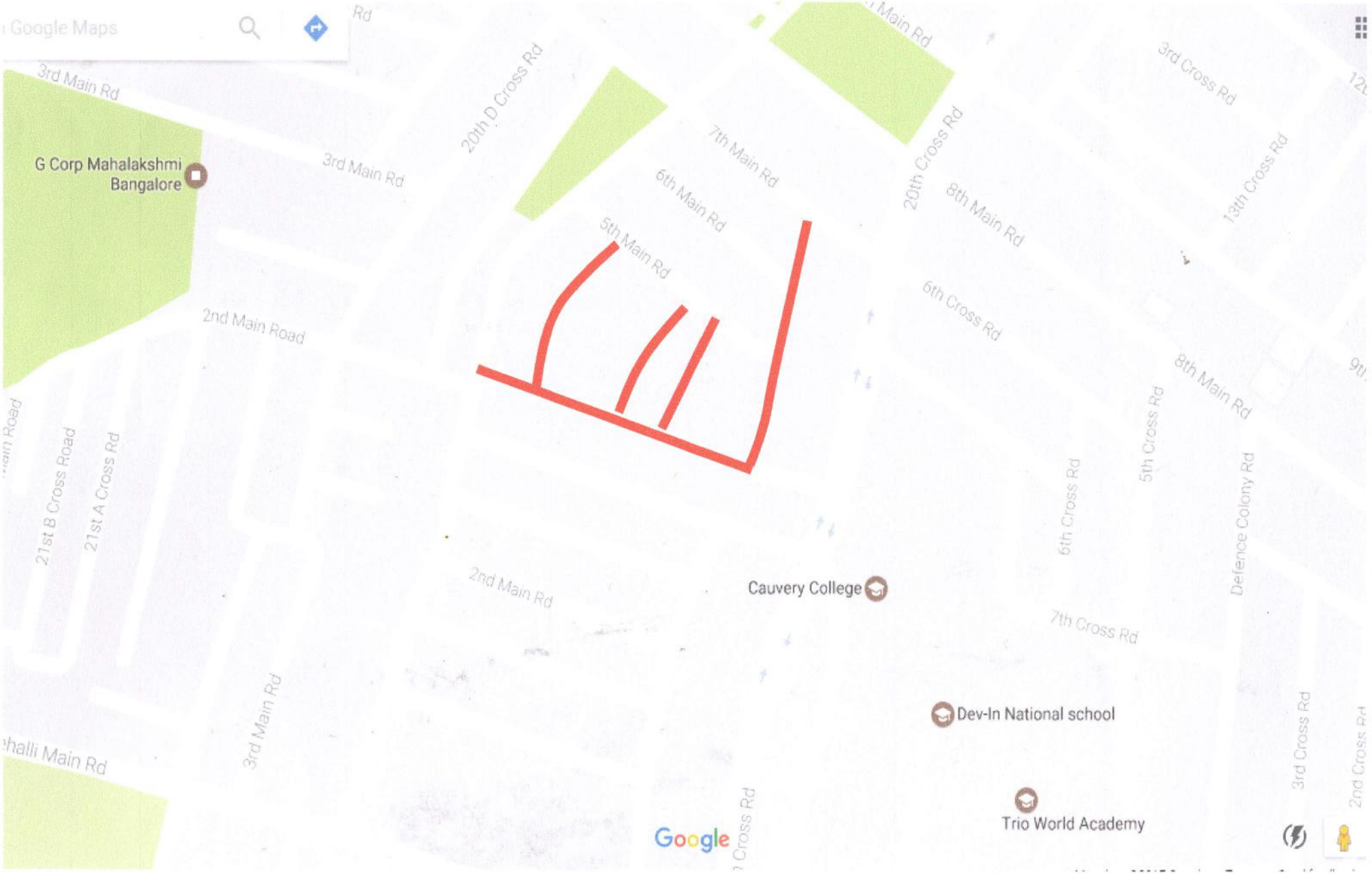
KEY MAP – Railway Parallel Road Kodigehalli



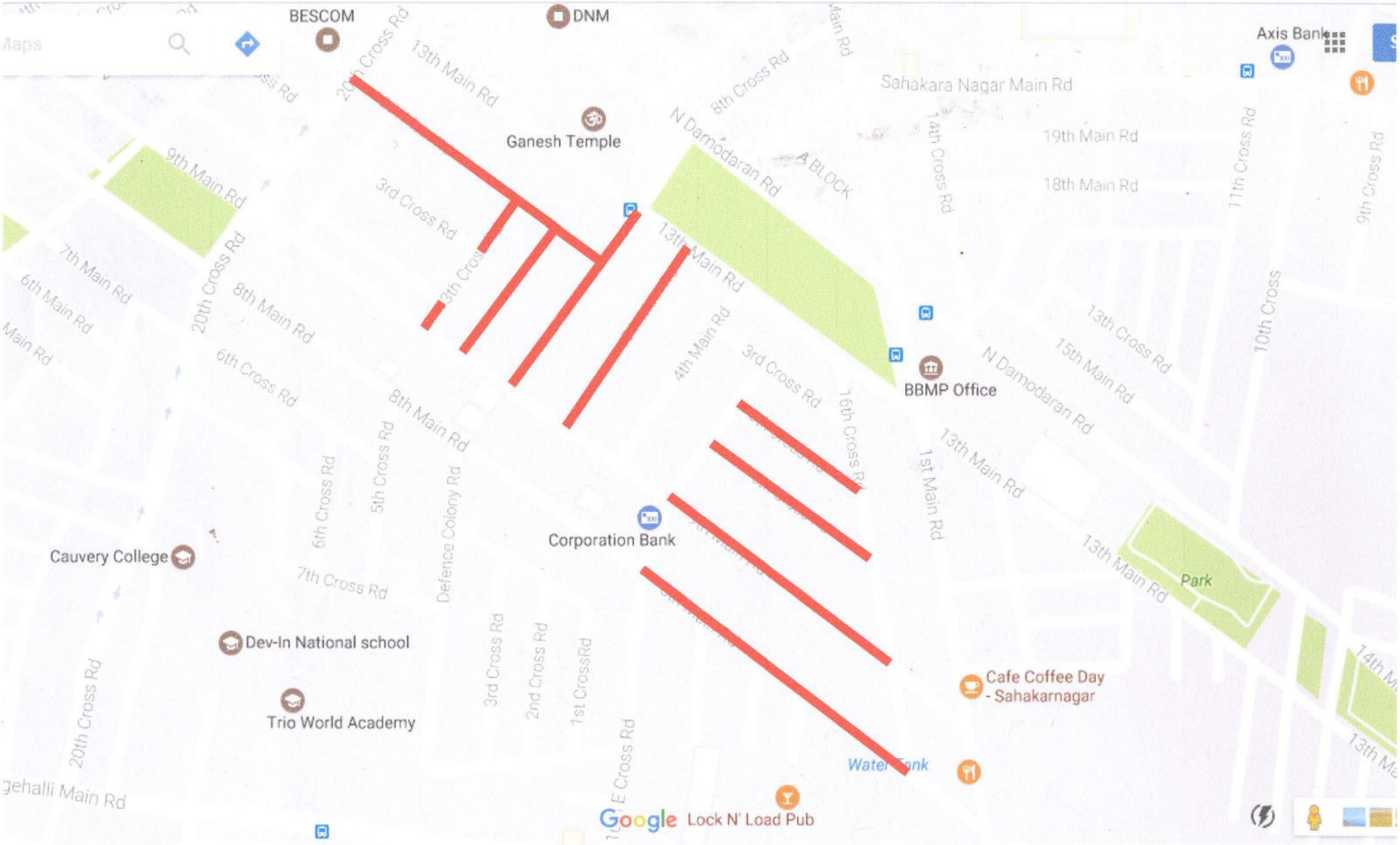
KEY MAP – Railway Parallel Road Kodigehalli (Defence Colony Road)



KEY MAP – 4th main 16th 17th 18th 19th cross roads



KEY MAP – CQAL layout



BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Road, Drain and Footpath along railway parallel road and cross road in ward number 8, kodigehalli

Est Cost: =95 Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	Removing and Resetting of Footpath Slab (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Drain Cover	Sqm							
	Railway parallel Road								
	LHS								
	Ch 130-275		1	145.00	1.20	--	174.00		
	Ch 275-605		1	330.00	1.20	--	396.00		
	Ch 605-720		1	115.00	1.20	--	138.00		
							708.00		
	Consider 40% Missing slabs and damaged slabs						283.20		
							424.80	132.50	**56286.00**
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	Railway parallel Road								
	LHS								
	Ch 130-275		1	67.50	1.80	--	121.50		
	Ch 275-605		1	165.00	1.80	--	297.00		
	Ch 605-720		1	57.50	1.80	--	103.50		
	Defence layout 1st main road		2	135.00	1.80	--	486.00		
	12th main road in railway parallel road		2	160.00	1.80	--	576.00		
	8th main road sahakara nagara								
	ch 0-210		2	50.00	1.80	--	180.00		
	9th main road sahakara nagara								
	ch 0-210		2	50.00	1.80	--	180.00		
			2	50.00	1.20	--	120.00		
	10th main road sahakara nagara								
	ch 0-150		2	40.00	1.80	--	144.00		
	11th main road sahakara nagara								
	ch 0-115		2	30.00	1.80	--	108.00		
	Defence layout 10th cross								
	ch 0-160		2	48.00	1.80	--	172.80		
	Defence layout 11th cross								
	ch 0-150		2	45.00	1.80	--	162.00		
	12th main CQAL layout								
	ch 0-295		2	90.00	1.80	--	324.00		
	c/s road A in 12th main CQAL								
	ch 0-125		2	35.00	1.80	--	126.00		
	c/s road B in 12th main CQAL								
	ch 0-125		2	35.00	1.80	--	126.00		
	4th main CQAL layout								
	ch 0-205		2	60.00	1.80	--	216.00		
	19th cross in 4th main CQAL								
	ch 0-90		2	25.00	1.80	--	90.00		
	18th cross in 4th main CQAL								
	ch 0-75		2	20.00	1.80	--	72.00		
	17th cross in 4th main CQAL								
	ch 0-62		2	15.00	1.80	--	54.00		
	16th cross in 4th main CQAL								
	ch 0-130		2	40.00	1.80	--	144.00		
							3802.80	80.56	**306353.57**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Railway Parallel Road	Cum							
	Desilt								
	Ch 130-275		1	145.00	0.60	0.40	34.80		
	Ch 275-605		1	330.00	0.60	0.40	79.20		
	Ch 605-720		1	115.00	0.60	0.30	20.70		
	Defence layout 1st main road		2	135.00	0.60	0.50	81.00		
	12th main road in railway parallel road		2	160.00	0.60	0.35	67.20		
	8th main road sahakara nagara								
	ch 0-210		2	50.00	0.60	0.40	24.00		
	Over Burden Earth		2	210.00	1.20	0.10	50.40		
	9th main road sahakara nagara								
	ch 0-210		2	50.00	0.60	0.40	24.00		
	Over Burden Earth		2	210.00	1.20	0.10	50.40		
	10th main road sahakara nagara								
	ch 0-150		2	40.00	0.60	0.40	19.20		
	Over Burden Earth		2	150.00	1.20	0.15	54.00		
	11th main road sahakara nagara								
	ch 0-115		2	30.00	0.60	0.40	14.40		
	Over Burden Earth		2	115.00	1.20	0.10	27.60		
	Defence layout 10th cross								
	ch 0-160		2	160.00	0.60	0.50	96.00		
	Over Burden Earth		2	160.00	1.50	0.10	48.00		
	Defence layout 11th cross								
	ch 0-150		2	150.00	0.60	0.35	63.00		
	Over Burden Earth		2	150.00	1.50	0.15	67.50		
	12th main CQAL layout								
	ch 0-295		2	295.00	0.60	0.50	177.00		
	Over Burden Earth		2	295.00	1.50	0.10	88.50		
	c/s road A in 12th main CQAL								
	ch 0-125		2	125.00	0.60	0.50	75.00		
	Over Burden Earth		2	125.00	1.50	0.15	56.25		
	c/s road B in 12th main CQAL								
	ch 0-125		2	125.00	0.60	0.40	60.00		
	Over Burden Earth		2	125.00	1.50	0.15	56.25		
	4th main CQAL layout								
	ch 0-205		2	205.00	0.60	0.40	98.40		
	Over Burden Earth		2	175.00	1.50	0.15	78.75		
	19th cross in 4th main CQAL								
	ch 0-90		2	90.00	0.60	0.40	43.20		
	Over Burden Earth		2	90.00	1.50	0.15	40.50		
	18th cross in 4th main CQAL								
	ch 0-75		2	75.00	0.60	0.50	45.00		
	Over Burden Earth		2	75.00	1.50	0.10	22.50		
	17th cross in 4th main CQAL								
	ch 0-62		2	62.00	0.60	0.50	37.20		
	Over Burden Earth		2	62.00	1.20	0.10	14.88		
	16th cross in 4th main CQAL								
	ch 0-130		2	130.00	0.60	0.50	78.00		
	Over Burden Earth		2	130.00	1.20	0.10	31.20		
	Culverts		10	8.00	0.80	0.50	32.00		
	New Drain								
	Ch 0-130		1	130.00	0.80	0.80	83.20		
	For Shoulder Drains in Defence Layout		20	1.00	0.80	0.30	4.80		
							1944.03	192.92	**375042.27**
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Railway Parallel Road	Cum							
	Ch 0-130		2.00	130.00	0.30	0.100	7.80		
	Defence layout 1st main road		4.00	135.00	0.30	0.100	16.20		
	For Shoulder Drains in Defence Layout		20.00	1.00	0.80	0.100	1.60		
							25.60	5348.76	**136928.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	Railway Parallel Road	Sqm							
	Ch 0-130		1.00	130.00	1.80	--	234.00		
							234.00	665.68	**155769.12**
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Cum							
	Railway Parallel Road								
	Ch 0-130		1.00	130.00	0.45	0.23	13.46		
	Defence layout 1st main road		2.00	135.00	0.45	0.23	27.95		
							41.40	4438.22	**183742.31**
7	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4(P.No.25, I.No.5.34 of PW, P&IWTD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	Railway Parallel Road								
	Ch 0-130		1.00	130.00	--	0.20	26.00		
	Defence layout 1st main road		2.00	135.00	--	0.20	54.00		
	For Shoulder Drains in Defence Layout		40.00	1.00	--	0.20	8.00		
							88.00	961.42	**84604.96**
8	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
		Sqm							
	Railway Parallel Road								
	Ch 0-130		1.00	130.00	--	0.230	29.90		
	Defence layout 1st main road		2.00	135.00	--	0.230	62.10		
							92.00	102.82	**9459.44**
9	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	Railway Parallel Road								
	Ch 0-130		2.00	130.00	0.30	0.075	5.85		
	Defence layout 1st main road		4.00	135.00	0.30	0.075	12.15		
	For Shoulder Drains in Defence Layout		40.00	1.00	0.15	0.075	0.45		
	For Footpath in Defence Layout		2.00	135.00	0.70	0.100	18.90		
							37.35	5767.46	**215414.63**
10	KSRRB M400-19: Construction of Median and island above road level with approved material deposited from borrowpits, spread, sloped and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No.407 (P.No158 of I.No.20.20 in PW,P&IWTD SR 2016-17)								
	For Footpath in Defence Layout	cum							
			2	135.00	0.70	0.20	37.80		
							37.80	208.82	**7893.40**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
11	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification.(P.No.109, I.No.14.62 of PW,P&IWTD S.R 2016-17))								
	For Footpath in Defence Layout								
			2	135.00	0.70	--	189.00		
							189.00	**1150.10**	**217368.90**
12	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Ch 0-130		1.00	120.00	1.20	--	144.00		
	Defence layout 1st main road		2.00	135.00	1.20	--	324.00		
	For Shoulder Drains in Defence Layout		20.00	1.00	0.60	--	12.00		
	Damaged and Missing Slabs						283.20		
							763.20	1698.00	**1295913.60**
13	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Culvert Slab	Sqm							
			1.00	7.00	1.50	--	10.50		
							10.50	4764.00	**50022.00**
14	Removing and Resetting of Kerb Stones (P.No.265, I.No.37.57 of PW,P&IWTD S.R 2016-17)								
	For Kerb	m							
	Railway parallel road								
	Ch 0-720 Rhs		1	720.00	--	--	720.00		
	Deduct 30% for Damaged & Missing Kerbs						-216.00		
							504.00	65.72	**33122.88**
15	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)								
	For Road Kerb	No.							
	New Kerbs								
	Damaged & Missing Kerbs		1	216.00	--	/0.45	480.00		
	Ch 0-130		1	130.00	--	/0.45	289.00		
	Defence Layout 1st Main		2	140.00	--	/0.45	622.00		
							1391.00	331.78	**461505.98**
16	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW,P&IWTD SR 2016-17)								
	For Kerb Painting	Sqm							
	Ch 0-130		2.00	130.00	--	0.35	91.00		
	Ch 130 - 720		1.00	590.00	--	0.35	206.50		
	Defence Layout 1st Main		2.00	140.00	--	0.35	98.00		
							395.50	63.60	**25153.80**
17	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road	Sqm							
	8th main road sahakara nagara								
	ch 0-210		1	210.00	7.00	--	1470.00		
	9th main road sahakara nagara								

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	ch 0-210		1	210.00	8.50	--	1785.00		
	10th main road sahakara nagara								
	ch 0-150		1	150.00	6.80	--	1020.00		
	11th main road sahakara nagara								
	ch 0-115		1	115.00	7.00	--	805.00		
	Defence layout 10th cross								
	ch 0-160		1	160.00	6.50	--	1040.00		
	Defence layout 11th cross								
	ch 0-150		1	150.00	7.00	--	1050.00		
	12th main CQAL layout								
	ch 0-295		1	295.00	7.50	--	2212.50		
	c/s road A in 12th main CQAL								
	ch 0-125		1	125.00	7.20	--	900.00		
	c/s road B in 12th main CQAL								
	ch 0-125		1	125.00	7.20	--	900.00		
	4th main CQAL layout								
	ch 0-205		1	180.00	4.80	--	864.00		
	19th cross in 4th main CQAL								
	ch 0-90		1	90.00	7.50	--	675.00		
	18th cross in 4th main CQAL								
	ch 0-75		1	75.00	5.50	--	412.50		
	17th cross in 4th main CQAL								
	ch 0-62		1	62.00	5.50	--	341.00		
	16th cross in 4th main CQAL								
	ch 0-130		1	130.00	5.80	--	754.00		
							14229.00	3.18	**45248.22**
18	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying DBM/ Profile Correction	Sqm							
	8th main road sahakara nagara								
	ch 0-210		1.00	75.00	1.80	--	135.00		
	9th main road sahakara nagara								
	ch 0-210		1.00	75.00	1.80	--	135.00		
	10th main road sahakara nagara								
	ch 0-150		1.00	65.00	1.50	--	97.50		
	11th main road sahakara nagara								
	ch 0-115		1.00	60.00	1.30	--	78.00		
	Defence layout 10th cross								
	ch 0-160		1.00	55.00	1.60	--	88.00		
	Defence layout 11th cross								
	ch 0-150		1.00	50.00	1.50	--	75.00		
	12th main CQAL layout								
	ch 0-295		1.00	100.00	1.80	--	180.00		
	c/s road A in 12th main CQAL								
	ch 0-125		1.00	50.00	1.80	--	90.00		
	c/s road B in 12th main CQAL								
	ch 0-125		1.00	50.00	1.80	--	90.00		
	4th main CQAL layout								
	ch 0-205		1.00	55.00	1.80	--	99.00		
	19th cross in 4th main CQAL								
	ch 0-90		1.00	35.00	1.90	--	66.50		
	18th cross in 4th main CQAL								
	ch 0-75		1.00	30.00	1.50	--	45.00		
	17th cross in 4th main CQAL								
	ch 0-62		1.00	28.00	1.30	--	36.40		
	16th cross in 4th main CQAL								
	ch 0-130		1.00	50.00	1.50	--	75.00		
	For Laying BC								
	8th main road sahakara nagara								
	ch 0-210		1.00	210.00	7.00	--	1470.00		
	9th main road sahakara nagara								
	ch 0-210		1.00	210.00	8.50	--	1785.00		
	10th main road sahakara nagara								
	ch 0-150		1.00	150.00	6.80	--	1020.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	11th main road sahakara nagara								
	ch 0-115		1.00	115.00	7.00	--	805.00		
	Defence layout 10th cross								
	ch 0-160		1.00	160.00	6.50	--	1040.00		
	Defence layout 11th cross								
	ch 0-150		1.00	150.00	7.00	--	1050.00		
	12th main CQAL layout								
	ch 0-295		1.00	295.00	7.50	--	2212.50		
	c/s road A in 12th main CQAL								
	ch 0-125		1.00	125.00	7.20	--	900.00		
	c/s road B in 12th main CQAL								
	ch 0-125		1.00	125.00	7.20	--	900.00		
	4th main CQAL layout								
	ch 0-205		1.00	180.00	4.80	--	864.00		
	19th cross in 4th main CQAL								
	ch 0-90		1.00	90.00	7.50	--	675.00		
	18th cross in 4th main CQAL								
	ch 0-75		1.00	75.00	5.50	--	412.50		
	17th cross in 4th main CQAL								
	ch 0-62		1.00	62.00	5.50	--	341.00		
	16th cross in 4th main CQAL								
	ch 0-130		1.00	130.00	5.80	--	754.00		
							15519.40	11.66	**180956.20**
19	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)								
	For Laying DBM/ Profile Correction	Cum							
	8th main road sahakara nagara								
	ch 0-210		1.00	75.00	1.80	0.05	6.75		
	9th main road sahakara nagara								
	ch 0-210		1.00	75.00	1.80	0.05	6.75		
	10th main road sahakara nagara								
	ch 0-150		1.00	65.00	1.50	0.05	4.88		
	11th main road sahakara nagara								
	ch 0-115		1.00	60.00	1.30	0.05	3.90		
	Defence layout 10th cross								
	ch 0-160		1.00	55.00	1.60	0.05	4.40		
	Defence layout 11th cross								
	ch 0-150		1.00	50.00	1.50	0.05	3.75		
	12th main CQAL layout								
	ch 0-295		1.00	100.00	1.80	0.05	9.00		
	c/s road A in 12th main CQAL								
	ch 0-125		1.00	50.00	1.80	0.05	4.50		
	c/s road B in 12th main CQAL								
	ch 0-125		1.00	50.00	1.80	0.05	4.50		
	4th main CQAL layout								
	ch 0-205		1.00	55.00	1.80	0.05	4.95		
	19th cross in 4th main CQAL								
	ch 0-90		1.00	35.00	1.90	0.05	3.33		
	18th cross in 4th main CQAL								
	ch 0-75		1.00	30.00	1.50	0.05	2.25		
	17th cross in 4th main CQAL								
	ch 0-62		1.00	28.00	1.30	0.05	1.82		
	16th cross in 4th main CQAL								
	ch 0-130		1.00	50.00	1.50	0.05	3.75		
							64.52	6435.26	**415202.98**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
20	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 6% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	Cum							
	8th main road sahakara nagara								
	ch 0-210		1.00	210.00	7.00	0.04	58.80		
	9th main road sahakara nagara								
	ch 0-210		1.00	210.00	8.50	0.04	71.40		
	10th main road sahakara nagara								
	ch 0-150		1.00	150.00	6.80	0.04	40.80		
	11th main road sahakara nagara								
	ch 0-115		1.00	115.00	7.00	0.04	32.20		
	Defence layout 10th cross								
	ch 0-160		1.00	160.00	6.50	0.04	41.60		
	Defence layout 11th cross								
	ch 0-150		1.00	150.00	7.00	0.04	42.00		
	12th main CQAL layout								
	ch 0-295		1.00	295.00	7.50	0.04	88.50		
	c/s road A in 12th main CQAL								
	ch 0-125		1.00	125.00	7.20	0.04	36.00		
	c/s road B in 12th main CQAL								
	ch 0-125		1.00	125.00	7.20	0.04	36.00		
	4th main CQAL layout								
	ch 0-205		1.00	180.00	4.80	0.04	34.56		
	19th cross in 4th main CQAL								
	ch 0-90		1.00	90.00	7.50	0.04	27.00		
	18th cross in 4th main CQAL								
	ch 0-75		1.00	75.00	5.50	0.04	16.50		
	17th cross in 4th main CQAL								
	ch 0-62		1.00	62.00	5.50	0.04	13.64		
	16th cross in 4th main CQAL								
	ch 0-130		1.00	130.00	5.80	0.04	30.16		
							569.16	7270.54	**4138100.55**
21	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	8th main road sahakara nagara	Sqm							
	Center lane Marking		0.5	2077.00	0.10	--	103.85		
	Edge line		2	2077.00	0.10	--	415.40		
							519.25	542.72	**281807.36**
22	KSRRB M800-35. Supply and Installation of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000kg tested in accordance to specification of category A of MORTH Circular No RW/NH/33023/10-97-Do III Dt 11.06.1997. The Height, width and length shall no exceed 50mm, 100mm, and 102mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30 mm) from the body is to be a minimum vakue of 500 kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer with 2 years warranty for the reflectivity from the original manufacturer is mandatory along with necessary test certification from the certified laboratory. Third party test certificates from a reputed test laboratory shall be submitted with seal and signature in originals. (P.No.189, I.No.24.41 of PW,P&IWTD SR 2016-17)								
	sahakara nagara	Nos							
			3	415.40	--	--	1246.20		
							1246.20	359.34	**447809.51**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
23	Manufacturing, Supply & Fixing of Retro- Reflection Road name sign board single Arrow size 1.98X0.9m size made out if wide angle cube corner micro prismatic grade sheeting confirming to IRC 67:2010 & type XI standards of ASTM D 4956-09 specifications and fixed over 2mm thick aluminium sheet back support frame of stainless stell supported by 30NB 1.2mm thick stainless steel pipe all around and 65NB 1.5mm thick pipe vertical post (AISI 202 Grade) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 30cmx30cmx45cm etc.complete. The information message shal be made out of cut out letters in blue colour transparent overlay film as per IRC 67-2010 Guidelines, 7 years pre-qualification warranty for retro reflective sheeting from the original sheeting manufacturer and a certied copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor. The sign board shall be Retro-Reflective Type XL								
	Approved Rate	Each	8	--	--	--	8.00	28250.00	226000.00
								Total Construction Cost	9349705.680
24								Cost towards Preparation of DPR LS	56099.00
25								Cost towards PMC / Third Party inspection LS	89498.00
								Sub Total	9495302.68
26								Miscellaneous and rounding off	4697.32
								Total	9500000.00

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

For Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer

Executive Engineer
Byatarayanapura Division
BBMP, Bangalore-92

Technical Sanction
Accorded For ..... 95.00 lakh Rs
Head of A/C..... P3158
CER NO :..... 162 ..... Dt:..04/03/17

TA

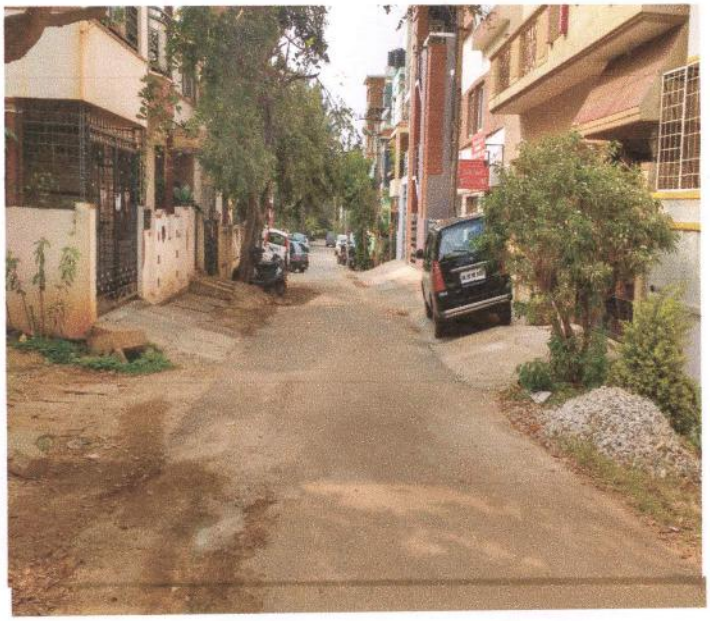
CE (YNK)

R-o-P.R

EXISTING VIEWS

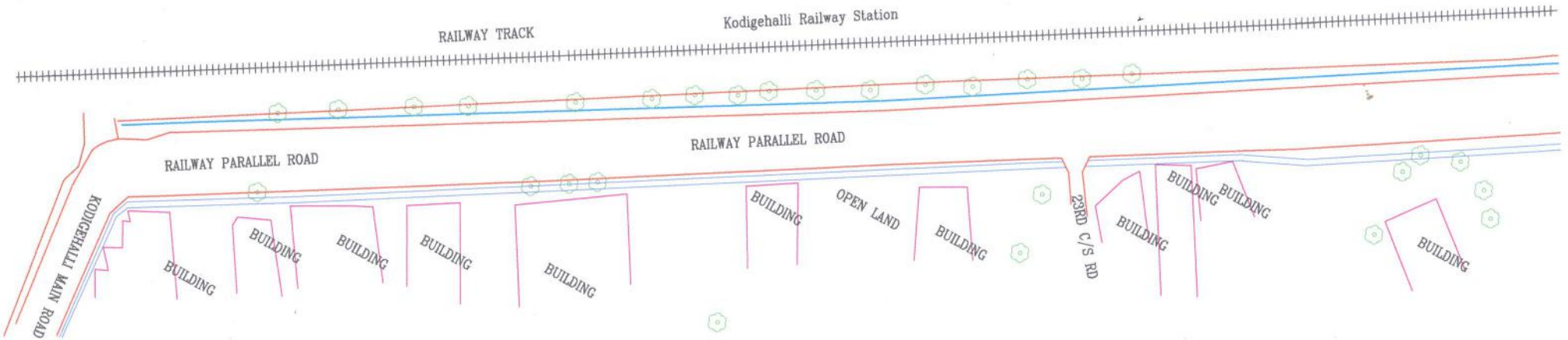
Assistant Executive Engineer,

EXISTING VIEWS



BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRIAN AND FOOTPATH ALONG RAILWAY PARALLEL ROAD AND CROSS ROAD IN WARD NUMBER 8, KODIGEHALLI



NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

LEGEND:-

Road
Drain
Contour
Levels
Power line
Telephone pole
Street light
Electric pole
Tree
Building
Bore Well
Drain level
Compound wall
Culvert
Coconut Tree
Road level

CONSULTANT:

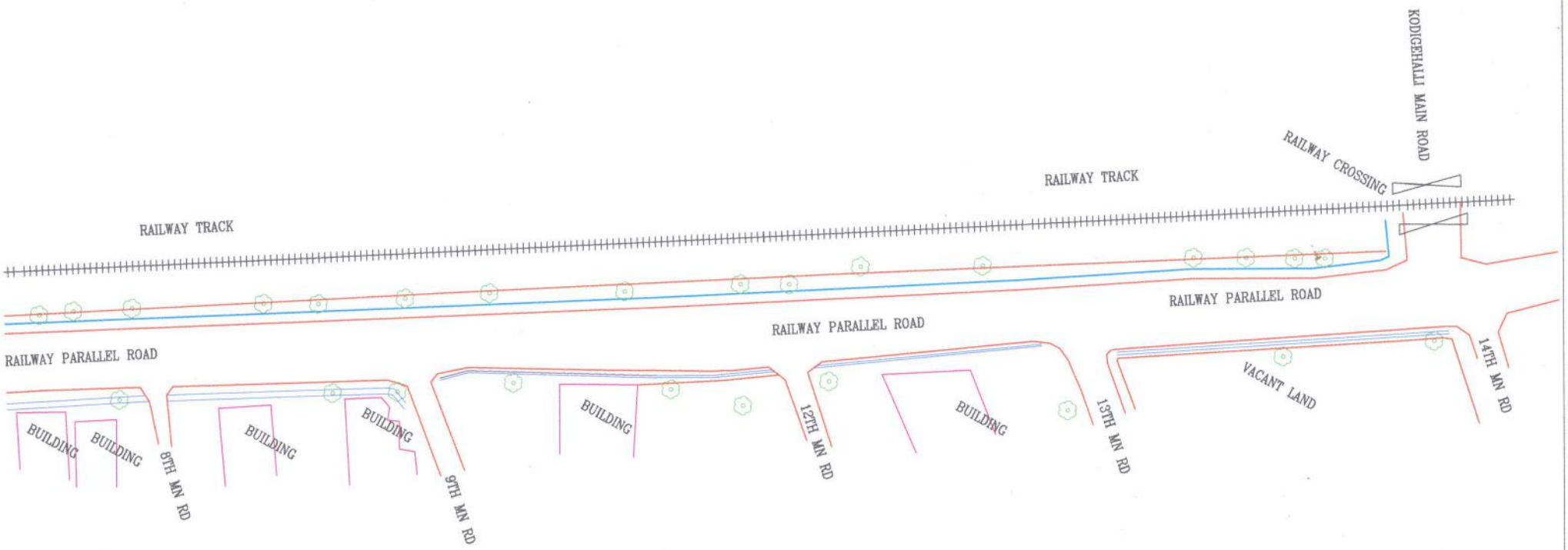
TEJUS CONSULTANTS
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Basaveshwaranagar
Bangalore-560079
TEL: 080 - 23287532
email: tejusconsultants@gmail.com

TITLE: STRIP PLAN

2/2

BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRIAN AND FOOTPATH ALONG RAILWAY PARALLEL ROAD AND CROSS ROAD IN WARD NUMBER 8, KODIGEHALLI



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Building
Bore Well
Drain level
Compound wall
Culvert
Coconut Tree
Road level

CONSULTANT:

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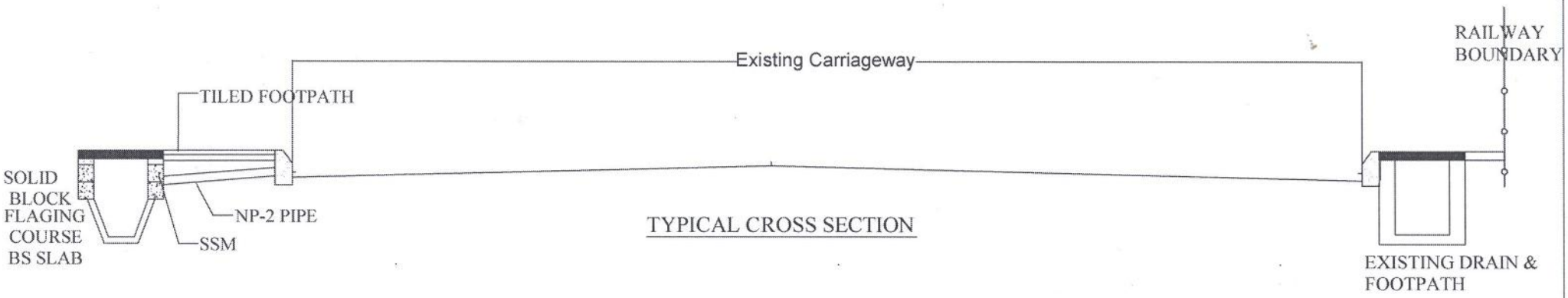
TITLE: STRIP PLAN

1/2

BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRIAN AND FOOTPATH ALONG RAILWAY PARALLEL ROAD AND CROSS ROAD IN WARD NUMBER 8, KODIGEHALLI



TYPICAL CROSS SECTION

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TYPICAL CROSS SECTION

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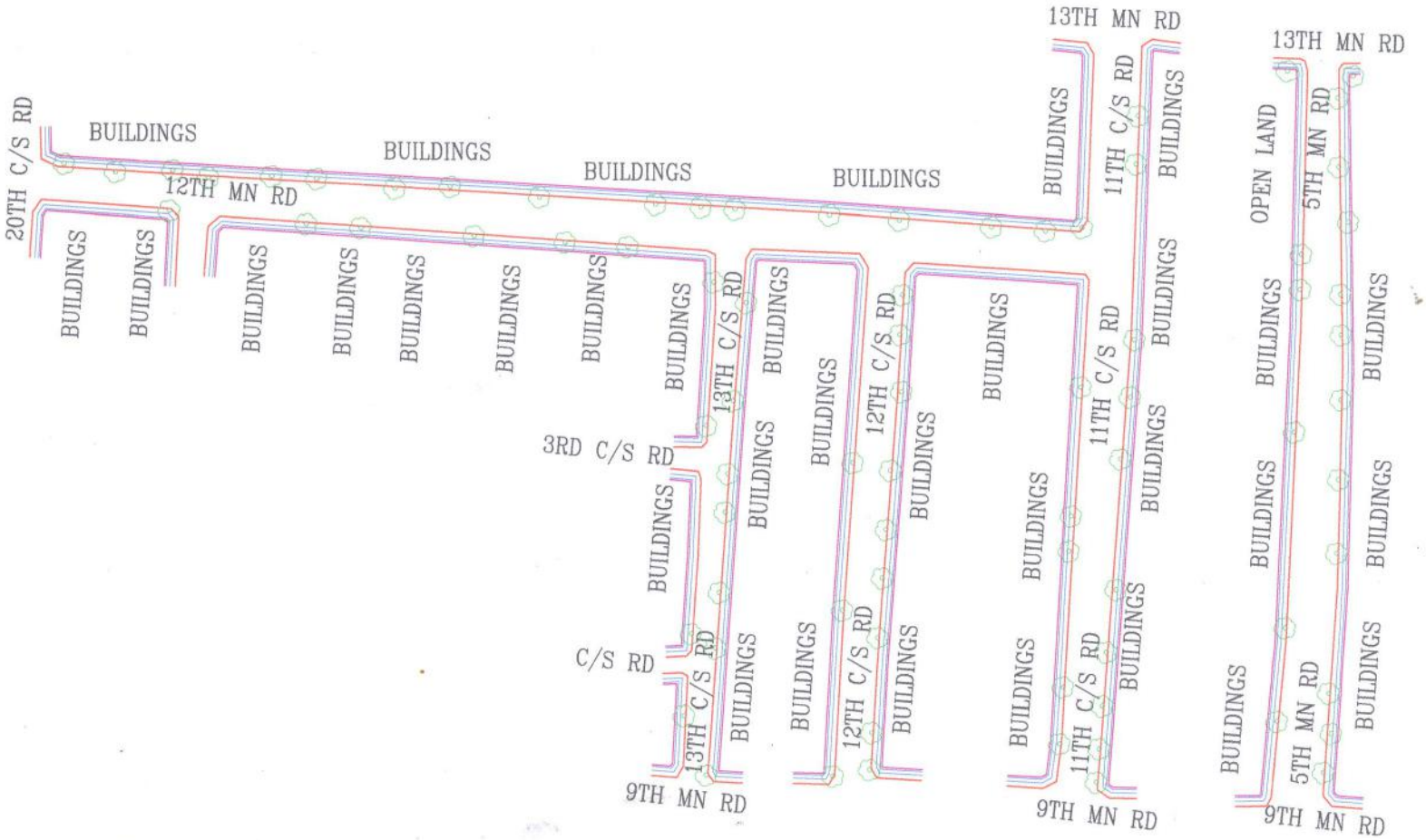

CQAL LAYOUT & DEFENCE LAYOUT

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Compound wall
Culvert
Coconut Tree
Road level

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TITLE: STRIP PLAN

1/2

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SAHAKARANAGARA

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Building
Bore Well
Drain level
Compound wall
Culvert
Coconut Tree
Road level

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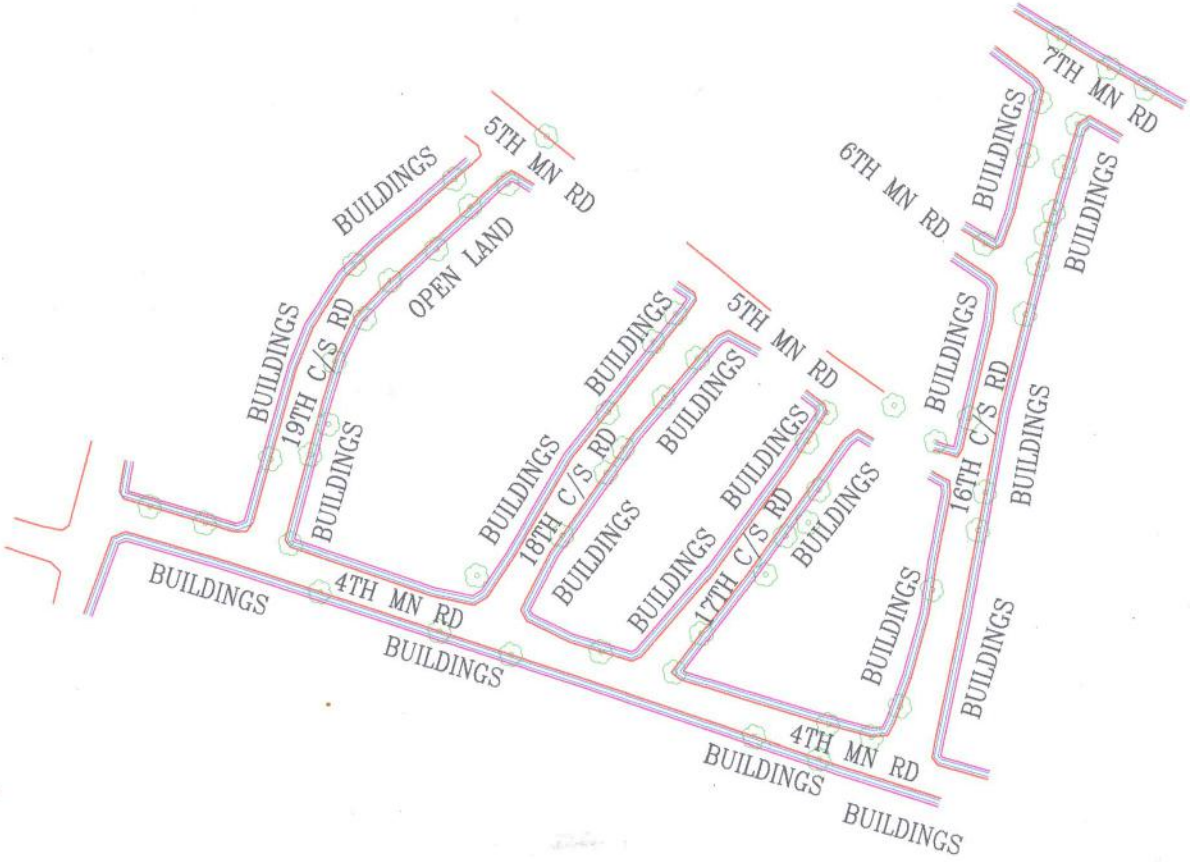
email: tejusconsultants@gmail.com

TITLE: STRIP PLAN

2/2

BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRIAN AND FOOTPATH ALONG RAILWAY PARALLEL ROAD AND CROSS ROAD IN WARD NUMBER 8, KODIGEHALLI



CQAL LAYOUT

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TITLE:

STRIP PLAN

1/1

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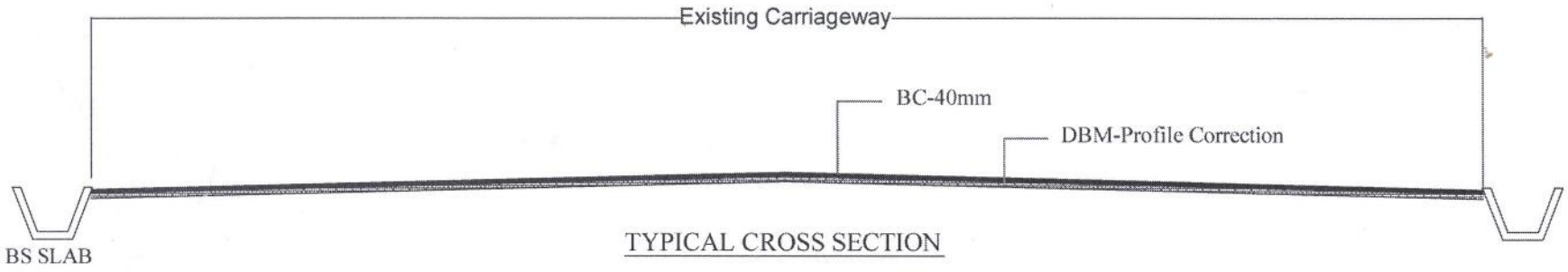

TYPICAL CROSS SECTION

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